13. (NEW) The apparatus according to claim 4, wherein
a part of the operation unit of the teaching pendant is configured by a touch panel

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REMARKS

I. STATUS OF CLAIMS

Claims 1-7 are pending. Various claims are amended. New claims 8-13 are added. In view of the above, it is submitted that claims 1-13 are pending for consideration herein.

II. OBJECTION TO THE DRAWINGS

Page 2 of the Office Action objects to the drawings for the reasons noted on the PTO-948 form.

At such time as a Notice of Allowability is issued, corrected drawings will be filed. Corrected Drawings are filed herewith and withdrawal of any objections is requested.

III. REJECTION OF CLAIMS 1-7 UNDER 35 U.S.C. § 112(1)

Page 2 of the Office Action rejects claims 1-7 under 35 U.S.C. § 112, first paragraph, as 'containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. (The so-called "unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or color scale" in claims 1, 2 and 4 has no clear support in the specification.'...)

Page 7, line 1 of the Specification states, "...and a unit converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale."

Page 14, line 18 of the Specification states: "Each of the image processing control units 13, 30, and 43 comprises a central processing unit (CPU) to which a camera interface, a console interface, a monitor interface, a communications interface, image memory, program memory, and data memory are connected through a bus.

A camera for taking a photograph of an object sequentially transmitted to, for example, the production line, is connected to the camera interface, and an image of the object processed as a gray scale image is stored in the image memory. The CPU processes the image stored in the memory, identifies an object, and detects the position and the posture of the object."

Therefore, the Applicant submits that the claimed feature in question is adequately described in the Specification. Withdrawal of the rejections is respectfully requested.

IV.   REJECTIONS OF CLAIMS 1-7 UNDER 35 U.S.C. § 103

Page 3 of the Office Action rejects claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over Kosaka (U.S. Patent No. 5,467,003) in view of Takaoka (U.S. Patent No. 6,167,328).

Claim 1 is amended to recite, "said teaching pendant comprises a display unit and a unit used for manipulation for image processing and display of the converted image data; and"

The teaching pendant in Takaoka allows a user to input points, but does not display converted image data from a camera. See Takaoka, Figure 5.

Claim 1 (as amended) also recites, "said display unit displays an image and indication for manipulation of image processing simultaneously, or allows a user to select either a switching mode or a superposition mode."

In Takaoka, the teaching pendant does not allow for a user to select either a switching mode or a superposition mode. See Takaoka, Figure 2. There is no superposition mode in Takaoka. Kosaka adds nothing with respect to the features discussed above.

Further, the combination of the two references (Kosaka and Takaoka) do not suggest the features discussed above. Since the individual references do not disclose or suggest the features discussed above, nothing in the combination serves to suggest them either.

Therefore, the Applicant submits that claim 1 is patentability distinguishable over the applied references.

In view of the above, independent claims 2 and 4 are also patentable over the applied references.

Therefore, withdrawal of the rejections of claims 1-7 is respectfully requested.

V.   NEW CLAIMS 8-10

New claims 8-10 recite additional features not taught or suggested by the prior art, as discussed above. Claims 11-13 reassert a feature combination of prior multiple dependent

claims. Therefore, it is submitted that new claims 8-13 are in condition for allowance.
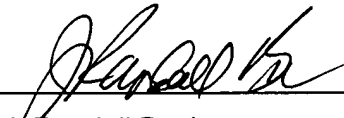
VI. CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _____11/27/2_____   By: _____

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND the following claims:

1.   (ONCE AMENDED) An image processing apparatus for a robot which is built in a robot controller, and has a portable teaching pendant connected thereto, comprising:

a unit for fetching an image from a camera;

memory storing image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale, wherein:

said teaching pendant comprises a display unit and a unit <u>used</u> for [manipulating] <u>manipulation for</u> image processing <u>and display of the converted image data</u>; and

said display unit displays an image and indication for manipulation of image processing[,] simultaneously, or [in] <u>allows a user to select either</u> a switching mode or <u>a</u> superposition mode.

2.   (ONCE AMENDED) An image processing apparatus for a robot which is designed independent of the robot controller, and has a portable teaching pendant connected thereto, comprising:

a unit for fetching an image from a camera;

memory storing image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale, wherein:

said teaching pendant comprises a display unit and a unit <u>used</u> for [manipulating] <u>manipulation for</u> image processing <u>and display of the converted image data</u>; and

said display unit displays an image and indication for manipulation of image processing[,] simultaneously, or [in] <u>allows a user to select either</u> a switching mode or <u>a</u> superposition mode<u>,</u> <u>wherein the robot is designed independently of the robot controller</u>.

4.   (ONCE AMENDED) An image processing apparatus for a robot which is built in a robot controller, comprising:

a unit for fetching an image from a camera;

memory which stores image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or intermediate image data into a gray scale or a color scale, wherein:

a portable teaching pendant is connected to said robot controller through a cable; and

said teaching pendant comprises a unit for generating or editing a robot program, a unit for operating the robot, and a display unit, and can display on the display unit an image converted into the gray scale, and comprises a unit <u>used</u> for [manipulating] <u>manipulation for</u> image processing; and

said display unit displays, indication for generating or editing of the robot a program and indication for manipulation of image processing, together with an image[,] simultaneously, or [in] <u>allows a user to select either</u> a switching mode or <u>a</u> superposition mode.

6.   (TWICE AMENDED) The apparatus according to claim 1, wherein

a part of the operation unit of the teaching pendant is configured by a touch panel.

Please ADD the following NEW claims:

8.   (NEW) A method, comprising:

fetching an image from a camera;

storing image data from the camera or intermediate image data obtained in a stage of image processing; and

converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale; and

displaying converted image data on a teaching pendant,

wherein said displaying displays the image data and indication for manipulation for image processing simultaneously, or allows a user to enter a switching mode or a superposition mode.

9.   (NEW) An apparatus, comprising:

a image processor receiving an image from a camera;

a robot control unit controlling a robot; and

a portable teaching pendant displaying the image and allowing a user to control the robot using the robot control unit.

10. (NEW) A method, comprising:

receiving an image from a camera; and

displaying the image on a portable teaching pendant; and

controlling the robot using the portable teaching pendant.

11. (NEW) The apparatus according to claim 1, further comprising:

a unit for displaying and superposing geometric graphics on the image displayed on the display unit in accordance with the operation procedure of image processing and specifying an image processing with respect to the image.

12. (NEW) The apparatus according to claim 2, wherein

a part of the operation unit of the teaching pendant is configured by a touch panel.

13. (NEW) The apparatus according to claim 4, wherein

a part of the operation unit of the teaching pendant is configured by a touch panel.